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PRUNUS AMERICANA (ROSACEAE) IN THE ARKANSAS FLORA

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ABSTRACT

Prunus americana is unequivocally documented for the first time as occurring in Arkansas. Although previously reported for the state by numerous sources, all previous records in Arkansas herbaria have been due to misidentifications, mostly of *Prunus mexicana*. While here documented from a single location, *P. americana* may occur more widely and should be looked for across northern Arkansas.

KEY WORDS: Rosaceae, *Prunus*, Arkansas, native

Prunus americana Marsh. (Rosaceae), American or wild plum, was recently documented as occurring in Pope County, Arkansas. The species has been previously reported as occurring in Arkansas (Duncan & Duncan 1988; Smith 1988; Hunter 1989; Smith 1994; Arkansas Vascular Flora Committee 2006; BONAP 2011; USDA, NRCS. 2013) but had been excluded from the state for the Atlas of the Vascular Plants of Arkansas (Gentry et al., ined.) because no specimens had been located in an Arkansas herbarium to document the occurrence.

Prunus americana is a small tree native to a large area of North America (BONAP 2011). While *P. mexicana* S. Wats. grows as single individuals, *P. americana* forms thickets due to root-sprouting, making these two taxa easily separable in the field. Unfortunately, this character difference has usually been lacking from specimen labels, leaving specimens to be identified based on characters of the calyx. Using Smith's Keys to the Flora of Arkansas (1994), specimens with a less pubescent calyx were identified as *P. americana* and those with a more-pubescent calyx were identified as *P. mexicana*. Separation of *P. americana* from *P. umbellata* Ell. was less problematic, as *P. umbellata* lacks glands on the margins of the calyx lobes while *P. americana* has them.

As work progressed from the CHECKLIST (Arkansas Vascular Flora Committee 2006) towards the ATLAS (Gentry et al., ined.), I revisited locations from which I had collected specimens of what I had previously identified as *Prunus americana*, and none of the plants had root sprouts and formed a thicket; all plants were stand-alone individuals. Further searches in local woodlands consistently showed the same thing, and while most specimens identified as *P. americana* at APCR lacked sufficient label data, a few described the plants as single individuals. Conversations between members of the Arkansas Vascular Flora Committee led to the conclusion that *P. americana* should be excluded from the state's flora for lack of a specimen to document its occurrence.

A conversation with MaryAnn King, owner of Pine Ridge Gardens in London (Pope County), led to the collection of specimens of what appeared to be *Prunus americana* from a small clonal tree on her property. The young leaves and flowers (Fig. 1) seemed to match descriptions of those of *P. americana*, and the plant had several small trunks arising from a small area of the ground (Figs. 2, 3). Due to lack of comparative material and time constraints, the specimens were put away until late 2012. I contacted Dr. Joey Shaw (University of Tennessee at Chattanooga) and asked for his help with identification of the specimens. His opinion was that floral and leaf characters were consistent with those of *P. americana* and that he had little doubt that the specimens were of *P. americana*.

Voucher specimen. **USA. Arkansas.** Pope Co.: Pine Ridge Gardens Nursery, owned by Mary Ann King, NW of London, 1.3 km N of the intersection of Sycamore Road with Will Baker Road, 425m NE of Sycamore Road; lat. 35.36851° N, long. -93.29533° W; 171 m elev.; T8N, R22W, NW 1/4 of NW 1/4 of Sect. 12 (essentially on line with Sect. 1); 8 April 2010, *G.P. Johnson 5822* (APCR).

Figure 1. Leaves and flowers of *Prunus americana* in Pope County, Arkansas (*Johnson 5822*).

Figure 2. Growth form of *Prunus americana* in Pope County, Arkansas (*Johnson 5822*).

Figure 3. Clonal growth of *Prunus americana* in Pope County, Arkansas (*Johnson 5822*).

Prunus americana (Figs. 1, 2, and 3) occurs as a colony of small trees, each approximately 4 meters tall. Although the plants now grow in a commercial native plant nursery, there is no evidence that they were planted, and the plants were in existence when the property was purchased in 1975. At that time, the plants were growing at the edge of an oak-hickory-pine woodland. Although the trees flower and fruit profusely, there are no other colonies in the immediate area.

Based on an examination of Arkansas specimens at ACPR, flowering specimens of *Prunus americana* may be distinguished from *P. mexicana* and *P. umbellata* by the following: flowering as or after the leaves emerge (Fig. 1) instead of before (*P. mexicana* and *P. umbellata*); adaxial (upper) sepal surface sparsely to moderately pubescent instead of densely pubescent (*P. mexicana* and *P. umbellata*); and, sepal margins inconspicuously glandular as opposed to conspicuously glandular (*P. mexicana*) or eglandular (*P. umbellata*).

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